

FIG. 1

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FIG. 2

INSTRUCTION POINTER	REDUNDANCY PREDICTOR	INSTRUCTION	COMMENTS
341B	NOT REDUNDANT	MOVE AX, VALUE1	:Write to AX
341D	NOT REDUNDANT	ADD BX, VALUE2	
3420	REDUNDANT	ADD AX, BX	:Use AX and Write to AX
3422	NOT REDUNDANT	CMP DX, CX	
3424	NOT REDUNDANT	JNL BRANCH2	
3426	NOT REDUNDANT	MOV AX, CX	:Write to AX Without Using Previous Value

FIG. 4

INSTRUCTION	WRITTEN ON	USED	USE COUNT	INT. INSTR.	PRIORITY
{ ADD AX, BX 47 NOT WRITTEN ON NOT USED 0 D.C. }					
{ ADD BX, VALUE2 45 NOT WRITTEN ON USED 1 HIGH }					
{ MOV AX, VALUE1 43 WRITTEN ON USED 1 HIGH }					
{ 30 WRITTEN ON NOT USED } 18					

INSTRUCTION	WRITTEN ON	USED	PRIORITY
MOV AX, VALUE1	NOT WRITTEN ON	NOT USED	LOW

FIG. 3A

INSTRUCTION	WRITTEN ON	USED	PRIORITY
ADD BX, VALUE2	NOT WRITTEN ON	NOT USED	LOW
MOV AX, VALUE1	NOT WRITTEN ON	NOT USED	LOW

FIG. 3B

INSTRUCTION	WRITTEN ON	USED	PRIORITY
ADD AX, BX	NOT WRITTEN ON	NOT USED	LOW
ADD BX, VALUE2	NOT WRITTEN ON	USED	HIGH
MOV AX, VALUE1	WRITTEN ON	USED	HIGH

FIG. 3C

INSTRUCTION	WRITTEN ON	USED	PRIORITY
CMP DX, CX	WRITTEN ON	USED	HIGH
ADD AX, BX	NOT WRITTEN ON	NOT USED	LOW
ADD BX, VALUE2	NOT WRITTEN ON	USED	HIGH
MOV AX, VALUE1	WRITTEN ON	USED	HIGH

FIG. 3D

INSTRUCTION	WRITTEN ON	USED	PRIORITY
JNL BRANCH2	NOT WRITTEN ON	NOT USED	LOW
CMP DX, CX	WRITTEN ON	USED	HIGH
ADD AX, BX	NOT WRITTEN ON	NOT USED	LOW
ADD BX, VALUE2	NOT WRITTEN ON	USED	HIGH
MOV AX, VALUE1	WRITTEN ON	USED	HIGH

FIG. 3E

	INSTRUCTION	WRITTEN ON	USED	PRIORITY
36	MOV AX, CX	NOT WRITTEN ON	NOT USED	LOW
35~	JNL BRANCH2	NOT WRITTEN ON	NOT USED	LOW
34	CMP DX, CX	WRITTEN ON	USED	HIGH
33~	ADD AX, BX	WRITTEN ON	NOT USED	REDUNDANT
32~	ADD BX, VALUE2	NOT WRITTEN ON	USED	HIGH
31	MOV AX, VALUE1	WRITTEN ON	USED	HIGH

FIG. 3F 16 18 20 22

	INSTRUCTION	WRITTEN ON	USED	PRIORITY
36	MOV AX, CX	NOT WRITTEN ON	NOT USED	LOW
35~	JNL BRANCH2	NOT WRITTEN ON	NOT USED	LOW
34	CMP DX, CX	WRITTEN ON	USED	HIGH
33~	ADD AX, BX	WRITTEN ON	NOT USED	REDUNDANT
32~	ADD BX, VALUE2	NOT WRITTEN ON	USED	HIGH

FIG. 3G 16 18 20 22

	INSTRUCTION	WRITTEN ON	USED	PRIORITY
36	MOV AX, CX	NOT WRITTEN ON	NOT USED	LOW
35~	JNL BRANCH2	NOT WRITTEN ON	NOT USED	LOW
34	CMP DX, CX	WRITTEN ON	USED	HIGH
33~	ADD AX, BX	WRITTEN ON	NOT USED	REDUNDANT

FIG. 3H 16 18 20 22

	INSTRUCTION	WRITTEN ON	USED	PRIORITY
36	MOV AX, CX	NOT WRITTEN ON	NOT USED	LOW
35~	JNL BRANCH2	NOT WRITTEN ON	NOT USED	LOW
34	CMP DX, CX	NOT WRITTEN ON	USED	HIGH

FIG. 3I 16 18 20 22

	INSTRUCTION	WRITTEN ON	USED	PRIORITY
36	MOV AX, CX	NOT WRITTEN ON	NOT USED	LOW
35~	JNL BRANCH2	NOT WRITTEN ON	NOT USED	LOW

FIG. 3J 16 18 20 22

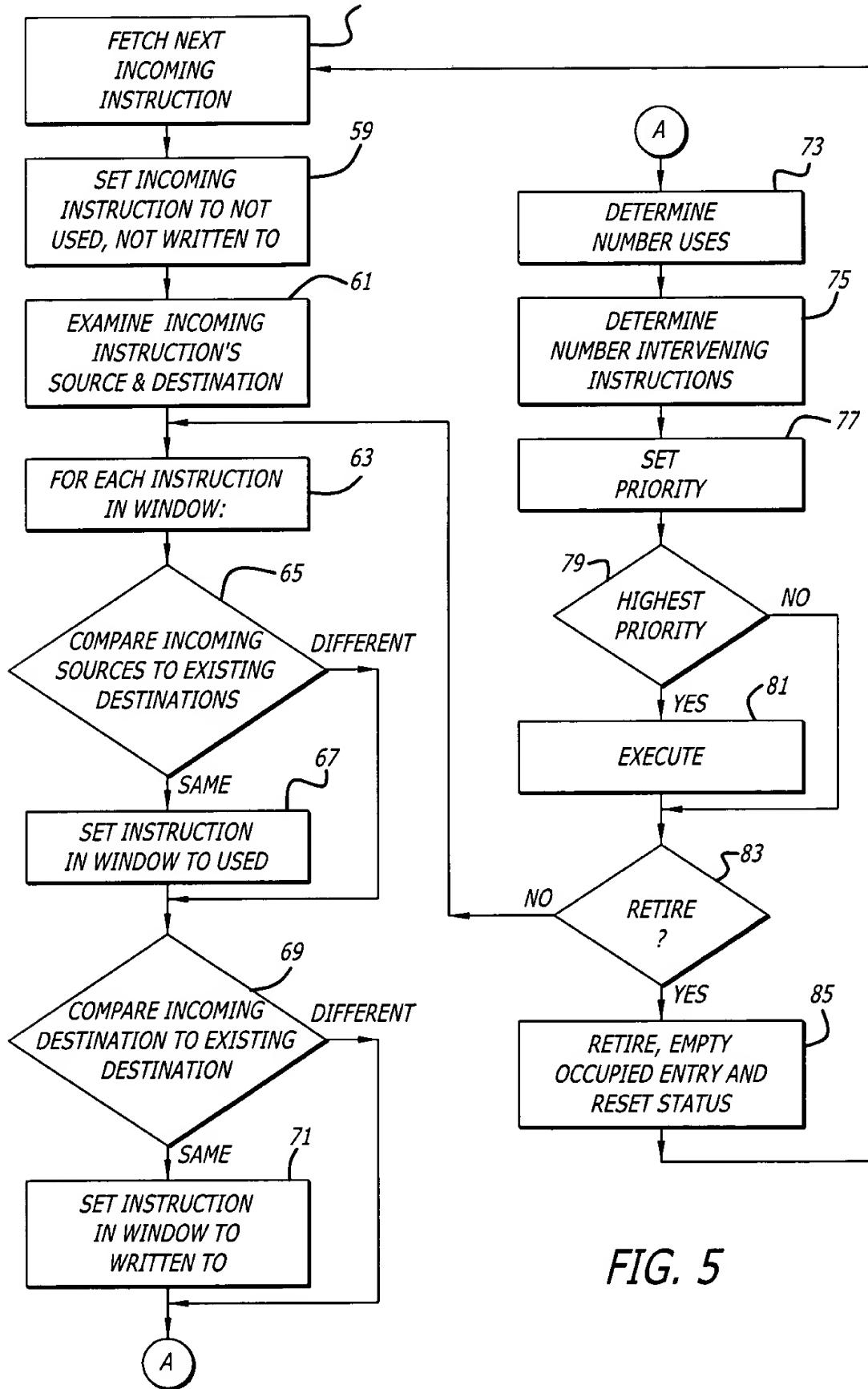


FIG. 5